AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listing, of claims in the application:

Listing of Claims:

1. (Original) A method of depositing a thin film on a wafer using an aluminum compound, the thin film being formed of Al_2O_3, the method being performed using a reaction chamber comprising a reactor block in which a wafer block is received; a top lid for covering the reactor block to maintain a predetermined pressure; a shower head including a plurality of first spray holes for spraying a first reactive gas supplied from a gas supply portion on the wafer and a plurality of second spray holes for spraying a second reactive gas supplied from the gas supply portion on the wafer, the method comprising:

(S1) mounting the wafer on the wafer block that is set so as to heat the wafer at a temperature of 250 °C or higher; and

(S2) depositing an Al_2O_3 thin film by alternately spraying the first reactive gas and the second reactive gas on the wafer,

step (S2) comprising:

(S2-1) feeding ozone by spraying the ozone as the first reactive gas through the first spray holes at a flow rate of from 50 sccm to 1000 sccm, the concentration of the ozone being 100 g/cm or higher, and, at the same time, spraying an inert gas through the second spray holes at a flow rate of 50 sccm to 1000 sccm;

(S2-2) purging the ozone by stopping the spraying of the ozone and spraying the inert gas through the first spray holes at a flow rate of 50 sccm to 1000 sccm, and, at the same time, spraying the same inert gas as in step (S2-1) through the second spray holes;

(S2-3) feeding a TMA gas by spraying the TMA gas as the second reactive gas through the second spray holes, the TMA gas being transferred by a carrier gas that is supplied at a flow rate of 50 sccm to 1000 sccm, and, at the same time, spraying the inert gas through the first spray holes at a flow rate of 50 sccm to 1000 sccm; and

(S2-4) purging the TMA gas by stopping the spraying of the TMA gas and spraying the same carrier gas as in step (S2-3) through the second spray holes and, at the same time, spraying the same inert gas as in step (S2-3) through the first spray holes,

step (S2) being performed by repeating an ALD cycle of steps (S2-1), (S2-2), (S2-3), and (S2-4) twice or more,

wherein it is set that steps (S2-1) and (S2-2) each is performed for 0.1 second to 4 seconds and steps (S2-3) and (S2-4) each is performed for 0.1 second to 3 seconds.

2. (Original) The method of claim 1, wherein the inert gas is sprayed through gas curtain holes, which are further included in the shower head, toward the inner sidewalls of the reactor block so as to minimize deposition of the thin film on the inner sidewalls of the reactor block, the inert gas being supplied at a flow rate of 50 sccm or more.

3. (Currently Amended) The method of claim 1 ~~or 2~~, wherein the TMA gas is supplied from a canister that is heated at a temperature of approximately 16 °C to 40 °C and has a capacity of approximately 500 cc to 3000 cc.

4. (Currently Amended) The method of claim 1 ~~or 2~~, further comprising vacuum purging, which is selectively performed between any two steps of the ALD cycle of steps (S2-1), (S2-2), (S2-3), and (S2-4),

wherein vacuum purging is performed by preventing all the gases from flowing into the reaction chamber and it is set that vacuum purging is performed for 0.1 second to 4 seconds.

5. (New) The method of claim 2, wherein the TMA gas is supplied from a canister that is heated at a temperature of approximately 16 °C to 40 °C and has a capacity of approximately 500 cc to 3000 cc.

6. (New) The method of claim 2, further comprising vacuum purging, which is selectively performed between any two steps of the ALD cycle of steps (S2-1), (S2-2), (S2-3), and (S2-4),

wherein vacuum purging is performed by preventing all the gases from flowing into the reaction chamber and it is set that vacuum purging is performed for 0.1 second to 4 seconds.